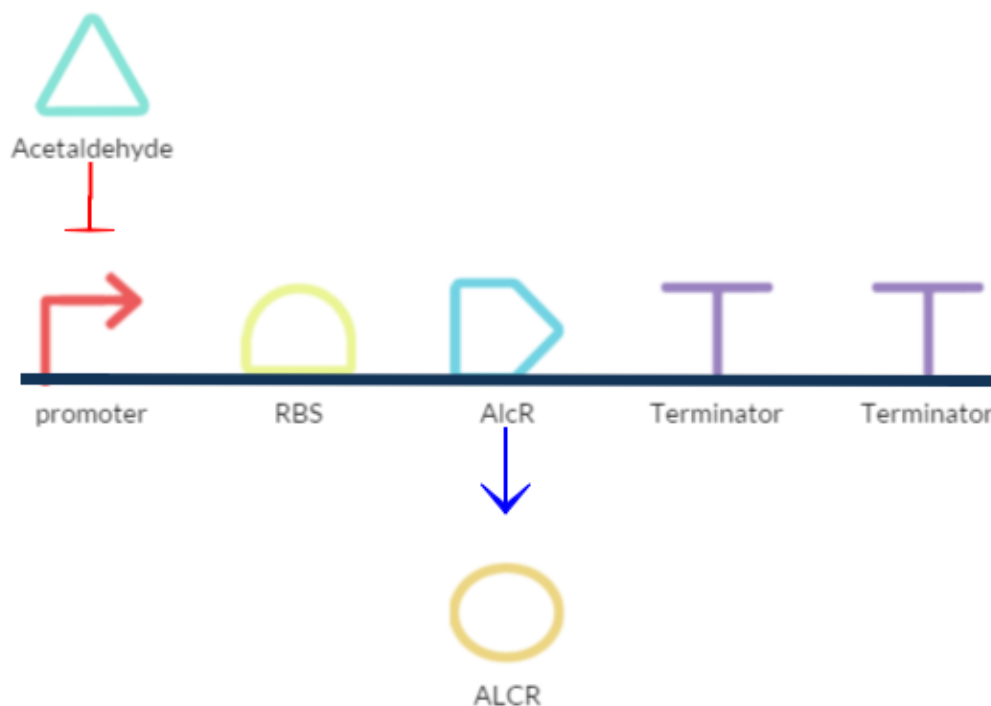


Biosensor_ Acetaldehyde



Formulae for two certain parts

ALCR and AlcR

$$\frac{d[AlcR]}{dt} = \chi_{\text{promoter:BBa_J23119_1}} \alpha_{AlcR} [AlcR^F] - d[AlcR]$$
$$[AlcR^F] = [AlcR] \frac{Kd}{Kd + [Acetaldehyde]}$$

Parameter Table

Symbols	Parameters	Values and Units
Kd	Repression coefficient	4.87
Alpha_AlcR	Production rate of AlcR	4.32umol*min^-1
n	Hill coefficient	3
d	Protein degradation rate	1.14 s^-1

Reference: http://2011.igem.org/Team:ETH_Zurich